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WHAT IS CLAIMED IS:

the pair of substrates,

1. A liquid crystal device comprising a pair of substrates retaining a smectic liquid crystal therebetween and a plurality of bulkheads intersecting with a direction of a layer of the smectic liquid crystal provided on at least one of

wherein an elastic modulus E of the bulkheads, an outside pressure P, an area Al of the substrate, a total area A2 of contact surfaces between the bulkheads and the substrate, and a volumetric shrinkage ratio $\Delta Vlc/Vlc$ of the smectic liquid crystal within an ambient temperature range of the liquid crystal device satisfy the following relation:

 $(1/E) \times P \times (A1/A2) \ge \Delta Vlc/Vlc.$

2. A liquid crystal device comprising a pair of substrates retaining a smectic liquid crystal therebetween and a plurality of stripe bulkheads intersecting with a direction of a layer of the smectic liquid crystal provided on at least one of the pair of substrates,

wherein an elastic modulus E, a height L, a spacing D, and a length H of the bulkheads, an outside pressure P, an area Al of the substrate, a total area A2 of contact surfaces between the bulkheads and the substrate, and a volumetric

shrinkage amount Δ Vlc within an ambient temperature range of the liquid crystal device, of the smectic liquid crystal filled in a space defined by the pair of substrates and a pair of bulkheads satisfy the following relation:

 $(1/E) \times L \times P \times (A1/A2) \ge \Delta Vlc/(D \times H)$.

- The liquid crystal device according to
 Claim 1 or 2, wherein the bulkheads intersect at an
 angle of approximately 90° with the direction of the
 layer of the smectic liquid crystal.
- The liquid crystal device according to Claim 1 or 2, wherein the bulkheads intersect at an
 angle except for 90° with the direction of the layer of the smectic liquid crystal.
- The liquid crystal device according to
 Claim 1 or 2, wherein the pair of substrates are
 bonded to each other by the bulkheads.
 - 6. The liquid crystal device according to Claim 1 or 2, wherein a width of the bulkheads is less than 10 μm_{\star}

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7. The liquid crystal device according to Claim 1 or 2, wherein a pitch of the bulkheads is not

less than 360 µm.

- 8. The liquid crystal device according to Claim 1 or 2, wherein the elastic modulus of the bulkheads is in a range of 200 to 500 ($10^5\ N/m^2$).
 - 9. The liquid crystal device according to Claim 1 or 2, wherein the bulkheads are made of an acrylic photosensitive resin.

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10. The liquid crystal device according to Claim 1 or 2, wherein the smectic liquid crystal is a ferroelectric liquid crystal or an antiferroelectric liquid crystal.

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- 11. A method of producing a liquid crystal device, comprising in the order mentioned below the steps of:
- (1) forming a stripe bulkhead on a first 20 substrate;
 - (2) rubbing the first substrate substantially parallel to the direction of the stripe of the bulkhead:
- (3) opposing and bonding the first substrate and a second substrate having no bulkhead formed thereon to each other, thereby forming a cell;
 - (4) filling the cell with a liquid crystal;

and

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(5) cooling the cell to a temperature not more than a smectic phase transition temperature of the liquid crystal, thereby forming a smectic layer substantially perpendicular to the bulkhead,

wherein an elastic modulus E of the bulkhead, an atmospheric pressure P, an area Al of the second substrate, a total area A2 of contact surfaces between the bulkhead and the second substrate, and a volumetric shrinkage ratio $\Delta Vlc/Vlc$ of the liquid crystal within a temperature variation range in the steps including and succeeding the step (4) satisfy the following relation:

 $(1/E) \times P \times (A1/A2) \ge \Delta Vlc/Vlc.$